

## Technical data sheet

### Single light beam safety device receiver

Part no.: 50121916

SLE46C-70.K2/4P



For illustration purposes only

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## Technical data

### Basic data

|        |     |
|--------|-----|
| Series | 46C |
|--------|-----|

### Functions

|           |                     |
|-----------|---------------------|
| Functions | Alignment indicator |
|           | Diagnostic output   |

### Characteristic parameters

|                             |                                                                                            |
|-----------------------------|--------------------------------------------------------------------------------------------|
| Type                        | 2, IEC/EN 61496, in combination with a suitable test monitoring unit, e.g. MSI-TR1B        |
| SIL                         | 1, IEC 61508, in combination with a suitable test monitoring unit, e.g. MSI-TR1B           |
| SILCL                       | 1, IEC/EN 62061, in combination with a suitable test monitoring unit, e.g. MSI-TR1B        |
| Performance Level (PL)      | c, EN ISO 13849-1:2008, In combination with a suitable test monitoring unit, e.g. MSI-TR1B |
| MTTF <sub>d</sub>           | 400 years, EN ISO 13849-1                                                                  |
| Mission time T <sub>M</sub> | 20 years, EN ISO 13849-1                                                                   |
| Category                    | 2, EN ISO 13849:2008, In combination with a suitable test monitoring unit, e.g. MSI-TR1B   |

### Electrical data

|                    |                              |
|--------------------|------------------------------|
| Protective circuit | Polarity reversal protection |
|                    | Short circuit protected      |

#### Performance data

|                               |                                               |
|-------------------------------|-----------------------------------------------|
| Supply voltage U <sub>B</sub> | 24 V, DC, -20 ... 20 %, Incl. residual ripple |
| Residual ripple               | 10 %, From U <sub>B</sub>                     |
| Open-circuit current          | 0 ... 15 mA                                   |

#### Outputs

|                                     |            |
|-------------------------------------|------------|
| Number of digital switching outputs | 2 Piece(s) |
|-------------------------------------|------------|

#### Switching outputs

|                              |                                           |
|------------------------------|-------------------------------------------|
| Switching voltage high, min. | 22 V                                      |
| Switching voltage low, max.  | 2 V                                       |
| Switching voltage, type.     | 23 V                                      |
| Voltage type                 | DC                                        |
| Switching current, max.      | 100 mA                                    |
| Switching voltage            | high: ≥(U <sub>B</sub> -2V)<br>low: ≤ 2 V |

#### Switching output 1

|                     |                           |
|---------------------|---------------------------|
| Assignment          | Connection 1, conductor 2 |
| Switching element   | Transistor, PNP           |
| Switching principle | Dark switching            |
| Function            | Diagnostic output         |

#### Switching output 2

|                     |                           |
|---------------------|---------------------------|
| Assignment          | Connection 1, conductor 4 |
| Switching element   | Transistor, PNP           |
| Switching principle | Light switching           |
| Function            | Switching output          |

### Time behavior

|                     |        |
|---------------------|--------|
| Switching frequency | 250 Hz |
| Response time       | 2.5 ms |
| Readiness delay     | 300 ms |

### Connection

|                       |            |
|-----------------------|------------|
| Number of connections | 1 Piece(s) |
|-----------------------|------------|

#### Connection 1

|                      |                |
|----------------------|----------------|
| Function             | Signal OUT     |
|                      | Voltage supply |
| Type of connection   | Cable          |
| Cable length         | 2,000 mm       |
| Sheathing material   | PUR            |
| Number of conductors | 4 -wire        |
| Wire cross section   | 0.21 mm²       |

### Mechanical data

|                            |                           |
|----------------------------|---------------------------|
| Design                     | Cubic                     |
| Dimension (W x H x L)      | 20.5 mm x 76.3 mm x 44 mm |
| Housing material           | Plastic                   |
| Plastic housing            | PC-PBT                    |
| Lens cover material        | Plastic / PMMA            |
| Net weight                 | 100 g                     |
| Housing color              | Red                       |
| Type of fastening          | Through-hole mounting     |
| Compatibility of materials | ECOLAB                    |

### Operation and display

|                 |            |
|-----------------|------------|
| Type of display | LED        |
| Number of LEDs  | 2 Piece(s) |

### Environmental data

|                                |               |
|--------------------------------|---------------|
| Ambient temperature, operation | -30 ... 60 °C |
| Ambient temperature, storage   | -30 ... 70 °C |

### Certifications

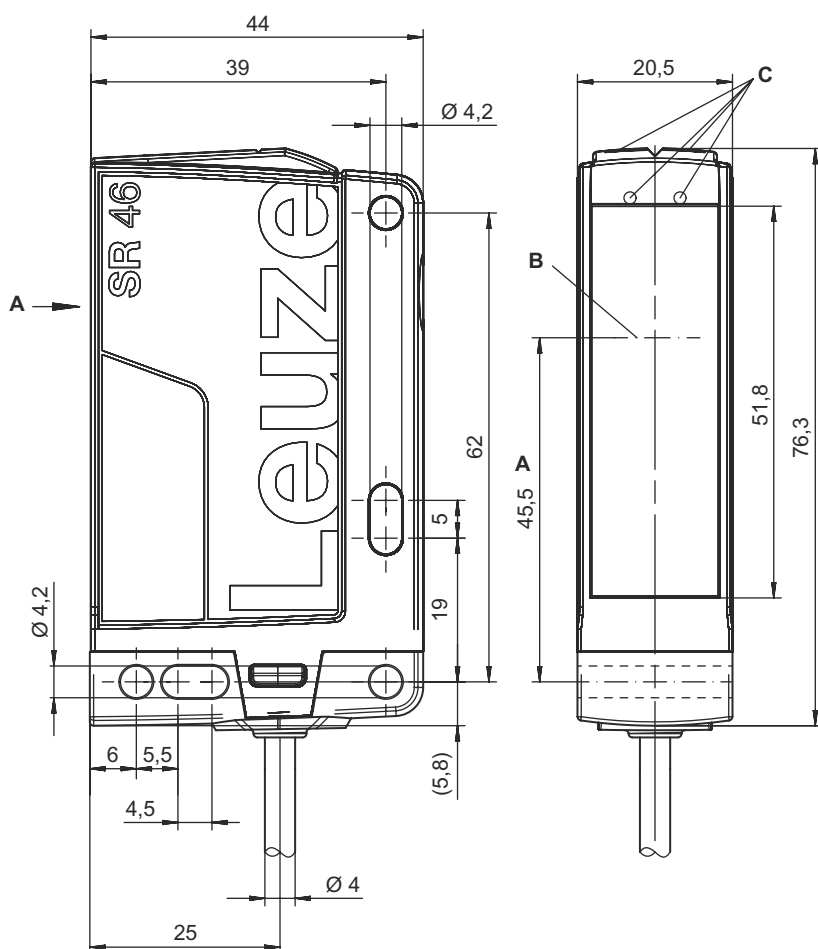
|                      |                             |
|----------------------|-----------------------------|
| Degree of protection | IP 67                       |
|                      | IP 69K                      |
| Protection class     | III, Rating voltage 50V     |
| Approvals            | c UL US                     |
| Standards applied    | IEC 60947-5-2, IEC/EN 61496 |

## Technical data

|                       |          |
|-----------------------|----------|
| Customs tariff number | 85365019 |
| ECLASS 5.1.4          | 27272701 |
| ECLASS 8.0            | 27272701 |
| ECLASS 9.0            | 27272701 |
| ECLASS 10.0           | 27272701 |
| ECLASS 11.0           | 27272701 |
| ECLASS 12.0           | 27272701 |
| ECLASS 13.0           | 27272701 |
| ECLASS 14.0           | 27272701 |
| ECLASS 15.0           | 27272701 |
| ECLASS 16.0           | 27272701 |
| ETIM 5.0              | EC001831 |
| ETIM 6.0              | EC001831 |
| ETIM 7.0              | EC001831 |
| ETIM 8.0              | EC001831 |
| ETIM 9.0              | EC001831 |
| ETIM 10.0             | EC001831 |

## Dimensioned drawings

All dimensions in millimeters



- A Optical axis
- B Transmitter and receiver
- C Green/yellow indicator diodes

## Electrical connection

### Connection 1

|                      |                |
|----------------------|----------------|
| Function             | Signal OUT     |
|                      | Voltage supply |
| Type of connection   | Cable          |
| Cable length         | 2,000 mm       |
| Sheathing material   | PUR            |
| Cable color          | Black          |
| Number of conductors | 4 -wire        |
| Wire cross section   | 0.21 mm²       |

### Conductor color

### Conductor assignment

|       |           |
|-------|-----------|
| Brown | +24 V     |
| White | Diagnosis |
| Blue  | GND       |
| Black | OUT       |

## Operation and display

| LED | Display                  | Meaning         |
|-----|--------------------------|-----------------|
| 1   | Green, continuous light  | Ready           |
| 2   | Yellow, continuous light | Light path free |

## Suitable transmitters

|                                                                                     | Part no. | Designation   | Article                                     | Description                                                                                                                                             |
|-------------------------------------------------------------------------------------|----------|---------------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | 50121908 | SLS46C-70.K28 | Single light beam safety device transmitter | Operating range: 5 ... 70 m<br>Operating range limit: 5 ... 80 m<br>Light source: LED, Red<br>Response time: 2.5 ms<br>Connection: Cable, 2,000 mm, PUR |

## Notes



### Observe intended use!



- ⚡ The product may only be put into operation by competent persons.
- ⚡ Only use the product in accordance with its intended use.

### For UL applications:



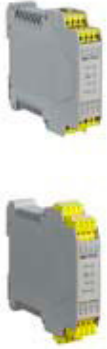
- ⚡ Certification: UL 508, C22.2 No.14-13
- ⚡ Only for use in "class 2" circuits
- ⚡ These proximity switches shall be used with UL Listed Cable assemblies rated 30V, 0.5A min, in the field installation, or equivalent (categories: CYJV/ CYJV7 or PVVA/PVVA7)

## Further information

- Light source: Average life expectancy 100,000 h at an ambient temperature of 25 °C

## Accessories

### Connection technology - Connection unit

|                                                                                   | Part no. | Designation | Article      | Description |
|-----------------------------------------------------------------------------------|----------|-------------|--------------|-------------|
|  | 547958   | MSI-TR1B-01 | Safety relay |             |
|                                                                                   | 547959   | MSI-TR1B-02 | Safety relay |             |

### Mounting technology - Mounting brackets

|                                                                                     | Part no. | Designation | Article         | Description                                                                                                                                                                              |
|-------------------------------------------------------------------------------------|----------|-------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | 50105315 | BT 46       | Mounting device | Design of mounting device: Angle, L-shape<br>Fastening, at system: Through-hole mounting<br>Mounting bracket, at device: Screw type<br>Type of mounting device: Rigid<br>Material: Metal |

### Mounting technology - Rod mounts

|                                                                                     | Part no. | Designation  | Article         | Description                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------|----------|--------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | 50122797 | BTU 346M-D12 | Mounting system | Contains: 2x M4 x 25 screw, 2x position washers<br>Design of mounting device: Mounting system<br>Fastening, at system: For 12 mm rod, Sheet-metal mounting<br>Mounting bracket, at device: Screw type<br>Type of mounting device: Turning, 360°, Adjustable, Clampable<br>Material: Metal |

## Accessories

### Muting - Mounting systems

|                                                                                   | Part no. | Designation  | Article         | Description                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------|----------|--------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | 50117252 | BTU 300M-D12 | Mounting system | Contains: 2x M4 x 25 screw, 2x M4 x 20 screw, 4x position washers<br>Design of mounting device: Mounting system<br>Fastening, at system: For 12 mm rod, Sheet-metal mounting<br>Mounting bracket, at device: Screw type, Suited for M4 screws<br>Type of mounting device: Clampable, Adjustable, Turning, 360°<br>Material: Metal |

#### Note



🔗 A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.